

CLAIMS

The invention claimed is:

1. A white light emitting device comprising:
a solid state first light source;
a second light source; and
a leadframe and an encapsulant, where said first light source is mounted on said leadframe and encapsulated by said encapsulant,
wherein said first and second light sources oriented such that when said first and second light sources emit light, light projected from said first and second light sources overlaps and is capable of forming effective white light, wherein the light projected from said first light source exhibits color coordinates different from the light projected from said second light source, and
wherein said leadframe includes a heat extraction member and a plurality of electrical leads, said heat extraction member providing a thermal path from said solid state first light source having a lower thermal resistance than a thermal path provided by said electrical leads.
2. The white light emitting device of claim 1, where said first light source emits blue light.
3. The white light emitting device of claim 1, where said first light source emits visible light.
4. The white light emitting device of claim 1, where said second light source is a photoluminescent source.
5. The white light emitting device of claim 4, where said photoluminescent source is disposed to receive light from said first light source.

6. The white light emitting device of claim 4, wherein said photoluminescent source is a fluorescent source.
7. The white light emitting device of claim 6, wherein said fluorescent source is a fluorescent dye.
8. The white light emitting device of claim 6, wherein said fluorescent source is a fluorescent crystal.
9. The white light emitting device of claim 6, wherein said fluorescent source is a fluorescent pigment.
10. The white light emitting device of claim 4, wherein said photoluminescent source is a phosphor source.
11. The white light emitting device of claim 4, wherein said photoluminescent source includes yttrium aluminum garnet.
12. The white light emitting device of claim 1, wherein said first light source is a semiconductor optical radiation emitter.
13. The white light emitting device of claim 1, wherein said leadframe includes three electrical leads.
14. The white light emitting device of claim 1, wherein said second light source is a semiconductor optical radiation emitter and is mounted on said leadframe and encapsulated by said encapsulant.
15. The white light emitting device of claim 1, wherein said radiation source is an LED.

16. The white light emitting device of claim 15, wherein said LED emits blue light.
17. A discrete light emitting diode component comprising:
a leadframe;
a polymer matrix enclosure;
an LED chip emitting light having a first hue, said LED chip is disposed on said leadframe and enclosed within said enclosure; and
a narrow band light emitter carried on said leadframe and emitting light of a hue different than emissions from said LED chip, said LED chip and said narrow band emitter disposed such that, when said LED chip and said narrow band emitter emit light, emissions from said LED chip overlap and mix with emissions from said narrow band emitter to form metameric white light,
wherein said leadframe includes a heat extraction member and a plurality of electrical leads, said heat extraction member providing a thermal path from said LED having a lower thermal resistance than a thermal path provided by said electrical leads.
18. The discrete light emitting diode component of claim 17, wherein said narrow band light emitter is an LED chip disposed on said leadframe and enclosed within said enclosure.
19. The discrete light emitting diode component of claim 17, wherein said narrow band light emitter is a photoluminescent material.
20. The discrete light emitting diode component of claim 17, wherein said LED chip emits light with a peak wavelength less than 505 nm and said narrow band light emitter emits light with a peak wavelength greater than 505 nm.